FIG.1

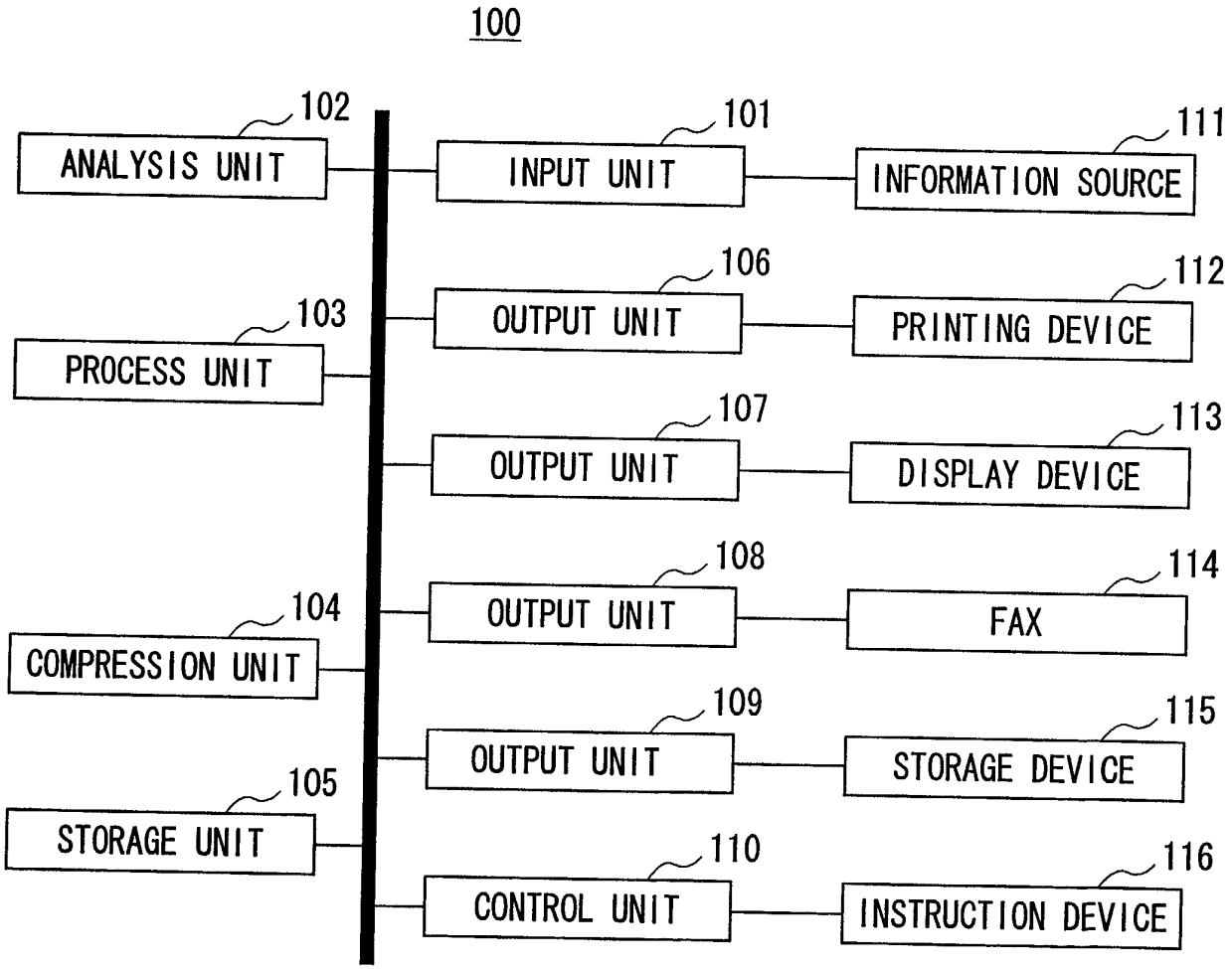
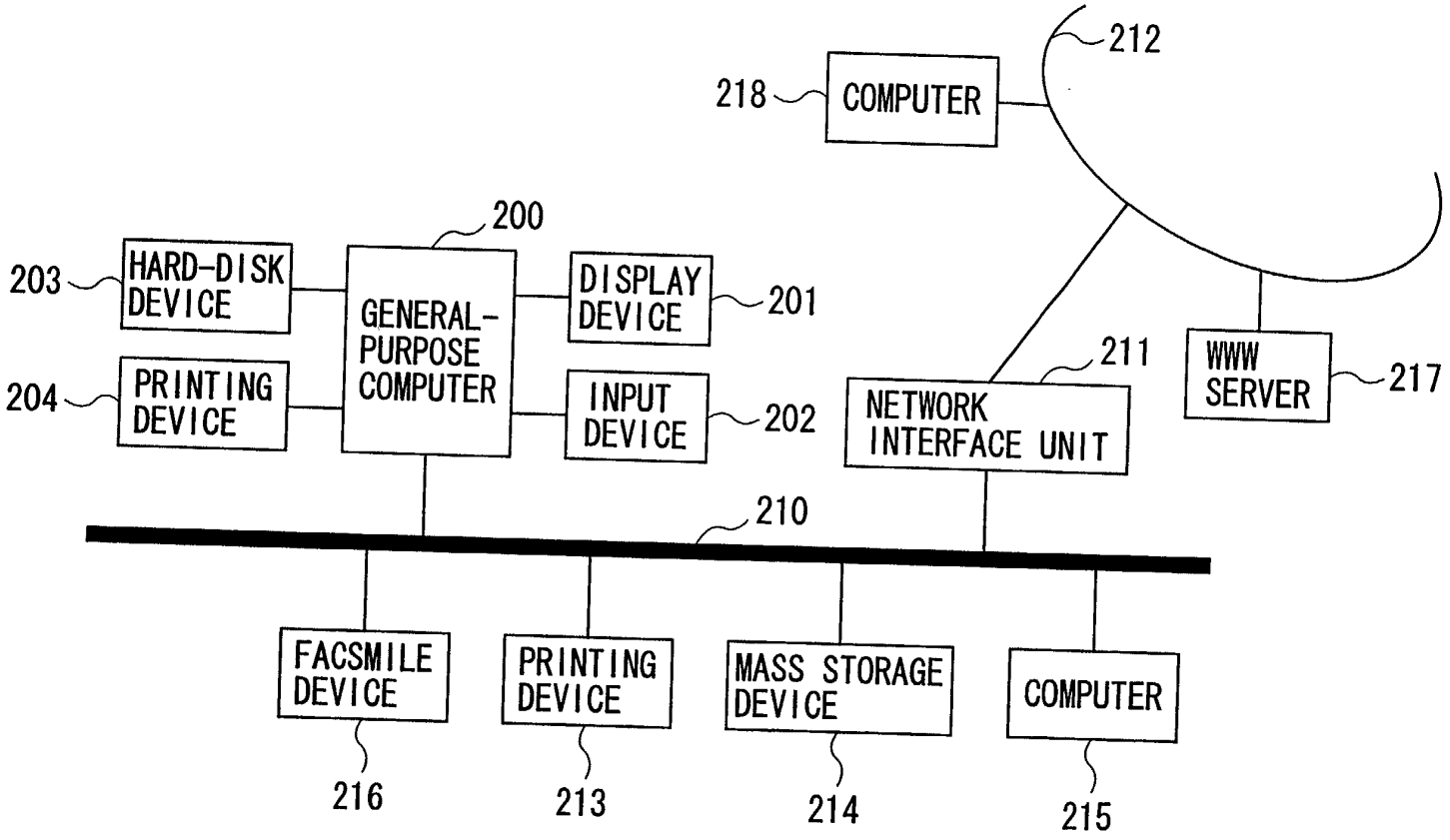

100
102
ANALYSIS UNIT
101
INPUT UNIT
111
INFORMATION SOURCE
106
OUTPUT UNIT
112
PRINTING DEVICE
103
PROCESS UNIT
107
OUTPUT UNIT
113
DISPLAY DEVICE
108
OUTPUT UNIT
114
FAX
104
COMPRESSION UNIT
109
OUTPUT UNIT
115
STORAGE DEVICE
105
STORAGE UNIT
110
CONTROL UNIT
116
INSTRUCTION DEVICE

FIG.2


212
218
COMPUTER
200
203
HARD-DISK DEVICE
GENERAL-PURPOSE COMPUTER
DISPLAY DEVICE
201
204
PRINTING DEVICE
INPUT DEVICE
202
211
NETWORK INTERFACE UNIT
WWW SERVER
217
210
FACSMILE DEVICE
PRINTING DEVICE
MASS STORAGE DEVICE
COMPUTER
216
213
214
215

# FIG.3

```
1 : <?xml version="1.0" encoding="Shift_JIS"?>
2 :
3 : <!ELEMENT doc (title,main,misc, img)>
4 : <!ELEMENT title (#PCDATA)>
5 : <!ATTLIST title viewpriority CDATA #FIXED "level1">
6 : <!ELEMENT main (section*)>
7 : <!ELEMENT section (sectiontitle,contents)>
8 : <!ELEMENT sectiontitle (#PCDATA)>
9 : <!ATTLIST sectiontitle viewpriority CDATA #FIXED "level2">
10 : <!ELEMENT contents (#PCDATA)>
11 : <!ATTLIST contents viewpriority CDATA #FIXED "level3">
12 : <!ELEMENT misc (date,author)>
13 : <!ATTLIST misc viewpriority CDATA #FIXED "level2">
14 : <!ELEMENT date (#PCDATA)>
15 : <!ELEMENT author (#PCDATA)>
16 : <!ELEMENT img EMPTY>
17 : <!ATTLIST img viewpriority CDATA #FIXED "level3">
18 :
19 : <doc>
20 : <title>TITLE</title>
21 : <main>
22 : <section>
23 : <sectiontitle>TITLE OF FIRST SECTION</sectiontitle>
24 : <contents>CONTENTS OF FIRST SECTION·····</contents>
25 : </section>
26 : <section>
27 : <sectiontitle>TITLE OF SECOND SECTION</sectiontitle>
28 : <contents>CONTENTS OF SECOND SECTION·····</contents>
29 : </section>
30 : <section>
31 : <sectiontitle>TITLE OF THIRD SECTION</sectiontitle>
32 : <contents>CONTENTS OF THIRD SECTION·····</contents>
33 : </section>
34 : <section>
35 : <sectiontitle>TITLE OF FOURTH SECTION</sectiontitle>
36 : <contents>CONTENTS OF FOURTH SECTION·····</contents>
37 : </section>
38 : </main>
39 : <misc>
40 : <date>AUGUST 1,1999</date>
41 : <author>NAME OF AUTHOR</author>
42 : </misc>
43 : <img src="imagefile.gif"></img>
44 : </doc>
```

# FIG.4

```
1 : <?xml version="1.0" encoding="Shift_JIS"?>
2 :
3 : <!ELEMENT doc (title,main,misc,img1,img2)>
4 : <!ELEMENT title (#PCDATA)>
5 : <!ATTLIST title viewpriority CDATA #FIXED "level1">
6 : <!ELEMENT main (section*)>
7 : <!ELEMENT section (sectiontitle,contents)>
8 : <!ELEMENT sectiontitle (#PCDATA)>
9 : <!ATTLIST sectiontitle viewpriority CDATA #FIXED "level2">
10 : <!ELEMENT contents (#PCDATA)>
11 : <!ATTLIST contents viewpriority CDATA #FIXED "level3">
12 : <!ELEMENT misc (date,author)>
13 : <!ATTLIST misc viewpriority CDATA #FIXED "level2">
14 : <!ELEMENT date (#PCDATA)>
15 : <!ELEMENT author (#PCDATA)>
16 : <!ELEMENT img1 EMPTY>
17 : <!ATTLIST img1 viewpriority CDATA #FIXED "level3">
18 : <!ELEMENT img2 EMPTY>
19 : <!ATTLIST img2 viewpriorty CDATA #FIXED "level1">>
20 :
21 : <doc>
22 : <title>TITLE</title>
23 : <main>
24 : <section>
25 : <sectiontitle>TITLE OF FIRST SECTION</sectiontitle>
26 : <contents>CONTENTS OF FIRST SECTION·····</contents>
27 : </section>
28 : <section>
29 : <sectiontitle>TITLE OF SECOND SECTION</sectiontitle>
30 : <contents>CONTENTS OF SECOND SECTION·····</contents>
31 : </section>
32 : </main>
33 : <misc>
34 : <date>AUGUST 1,1999</date>
35 : <author>NAME OF AUTHOR</author>
36 : </misc>
37 : <img1 src="imagefile1.gif"></img1>
38 : <img2 src="imagefile2.gif"></img2>
39 : </doc>
```

FIG.5

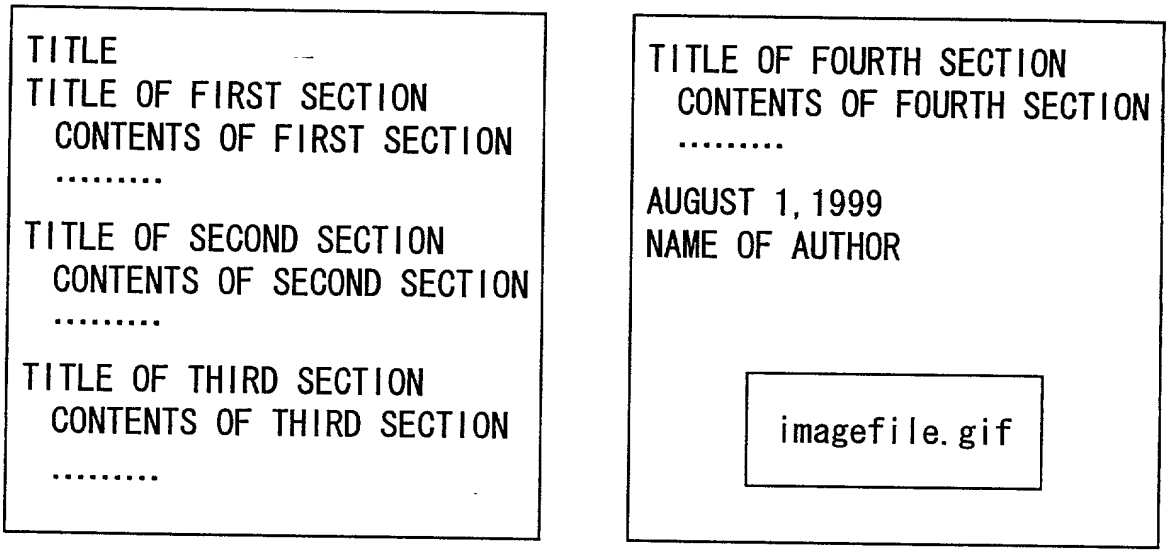

TITLE
TITLE OF FIRST SECTION
CONTENTS OF FIRST SECTION
.....
TITLE OF SECOND SECTION
CONTENTS OF SECOND SECTION
.....
TITLE OF THIRD SECTION
CONTENTS OF THIRD SECTION
.....
TITLE OF FOURTH SECTION
CONTENTS OF FOURTH SECTION
.....
AUGUST 1, 1999
NAME OF AUTHOR
imagefile.gif

FIG.6

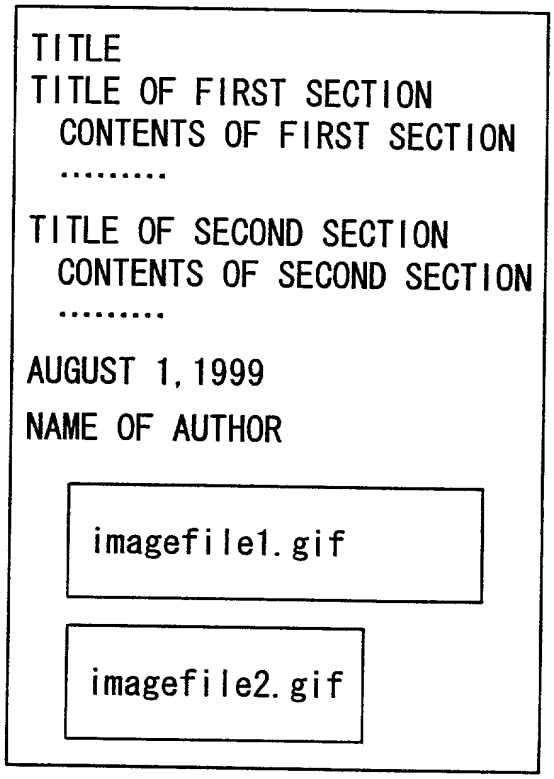

TITLE
TITLE OF FIRST SECTION
CONTENTS OF FIRST SECTION
.....
TITLE OF SECOND SECTION
CONTENTS OF SECOND SECTION
.....
AUGUST 1, 1999
NAME OF AUTHOR
imagefile1.gif
imagefile2.gif

FIG.7

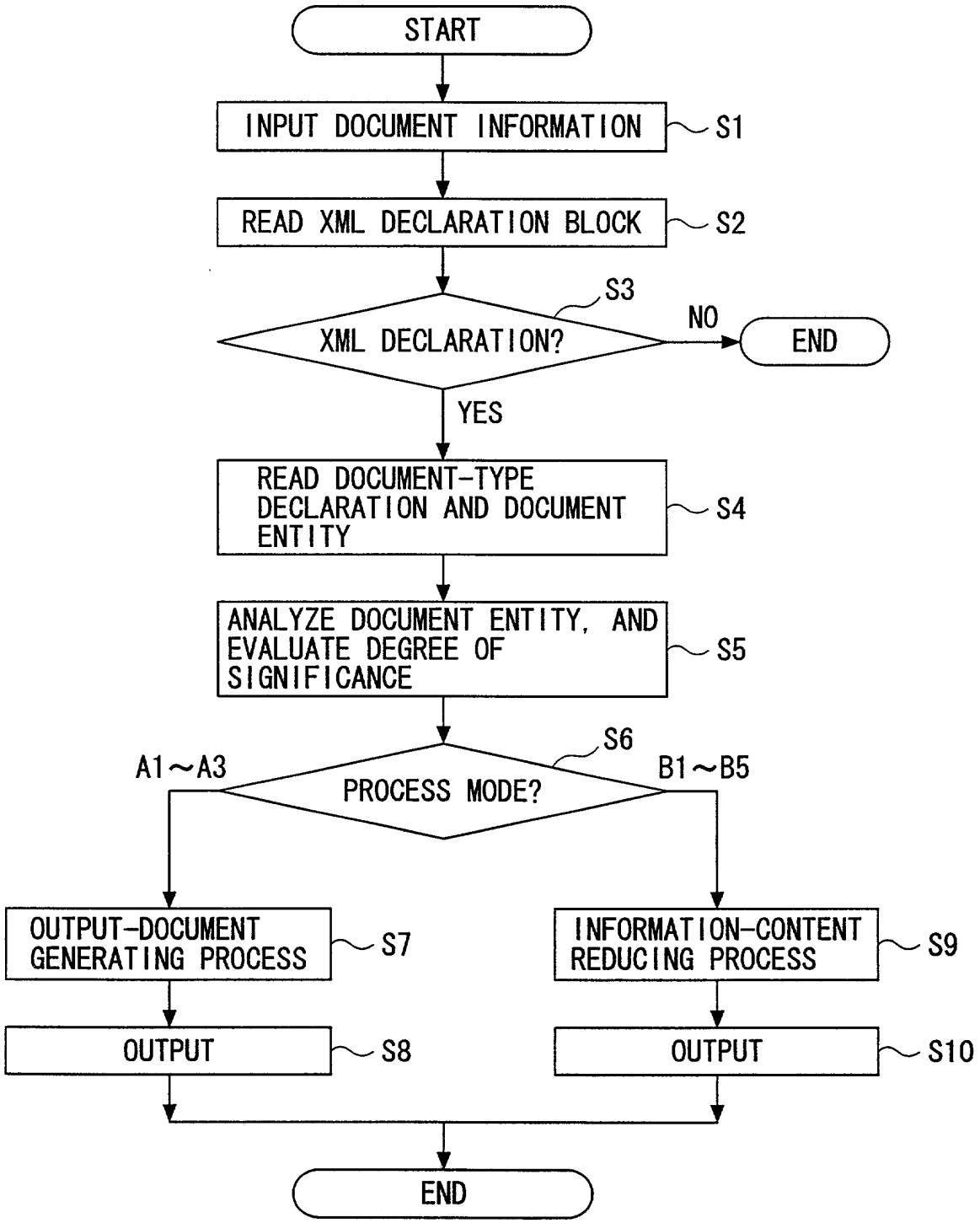

START
INPUT DOCUMENT INFORMATION
S1
READ XML DECLARATION BLOCK
S2
S3
XML DECLARATION?
NO
END
YES
READ DOCUMENT-TYPE DECLARATION AND DOCUMENT ENTITY
S4
ANALYZE DOCUMENT ENTITY, AND EVALUATE DEGREE OF SIGNIFICANCE
S5
S6
A1～A3
PROCESS MODE?
B1～B5
OUTPUT-DOCUMENT GENERATING PROCESS
S7
INFORMATION-CONTENT REDUCING PROCESS
S9
OUTPUT
S8
OUTPUT
S10
END

FIG.8

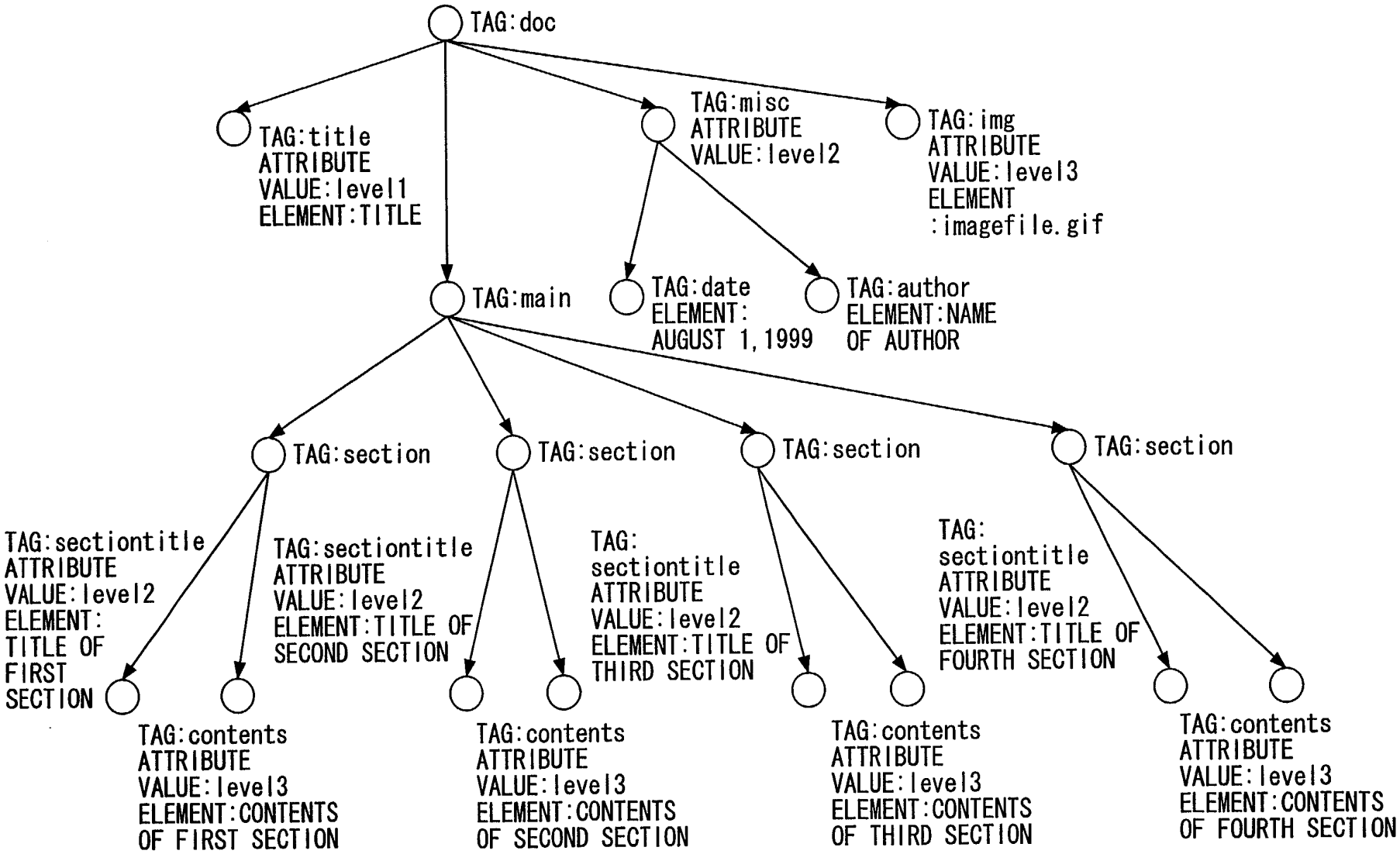

TAG:doc
TAG:title
ATTRIBUTE
VALUE:level1
ELEMENT:TITLE
TAG:misc
ATTRIBUTE
VALUE:level2
TAG:img
ATTRIBUTE
VALUE:level3
ELEMENT
:imagefile.gif
TAG:main
TAG:date
ELEMENT:
AUGUST 1,1999
TAG:author
ELEMENT:NAME
OF AUTHOR
TAG:section
TAG:section
TAG:section
TAG:section
TAG:sectiontitle
ATTRIBUTE
VALUE:level2
ELEMENT:
TITLE OF
FIRST
SECTION
TAG:sectiontitle
ATTRIBUTE
VALUE:level2
ELEMENT:TITLE OF
SECOND SECTION
TAG:
sectiontitle
ATTRIBUTE
VALUE:level2
ELEMENT:TITLE OF
THIRD SECTION
TAG:
sectiontitle
ATTRIBUTE
VALUE:level2
ELEMENT:TITLE OF
FOURTH SECTION
TAG:contents
ATTRIBUTE
VALUE:level3
ELEMENT:CONTENTS
OF FIRST SECTION
TAG:contents
ATTRIBUTE
VALUE:level3
ELEMENT:CONTENTS
OF SECOND SECTION
TAG:contents
ATTRIBUTE
VALUE:level3
ELEMENT:CONTENTS
OF THIRD SECTION
TAG:contents
ATTRIBUTE
VALUE:level3
ELEMENT:CONTENTS
OF FOURTH SECTION

FIG.9

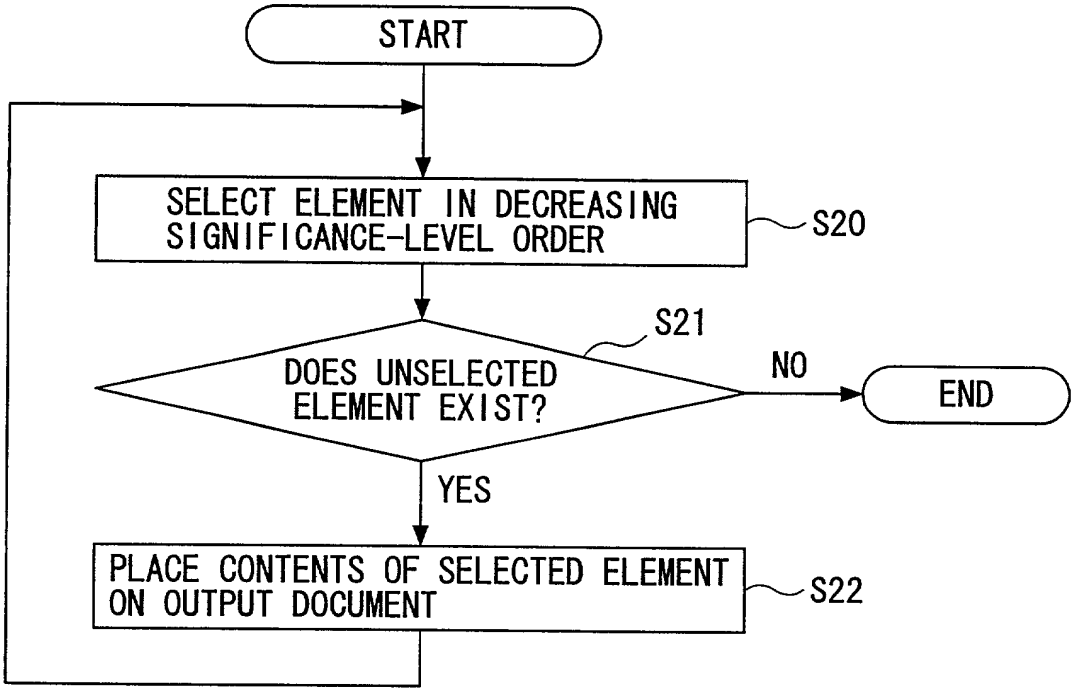



FIG.10

TITLE

TITLE OF FIRST SECTION

TITLE OF SECOND SECTION

TITLE OF THIRD SECTION

TITLE OF FOURTH SECTION

AUGUST 1, 1999
NAME OF AUTHOR

FIG.11

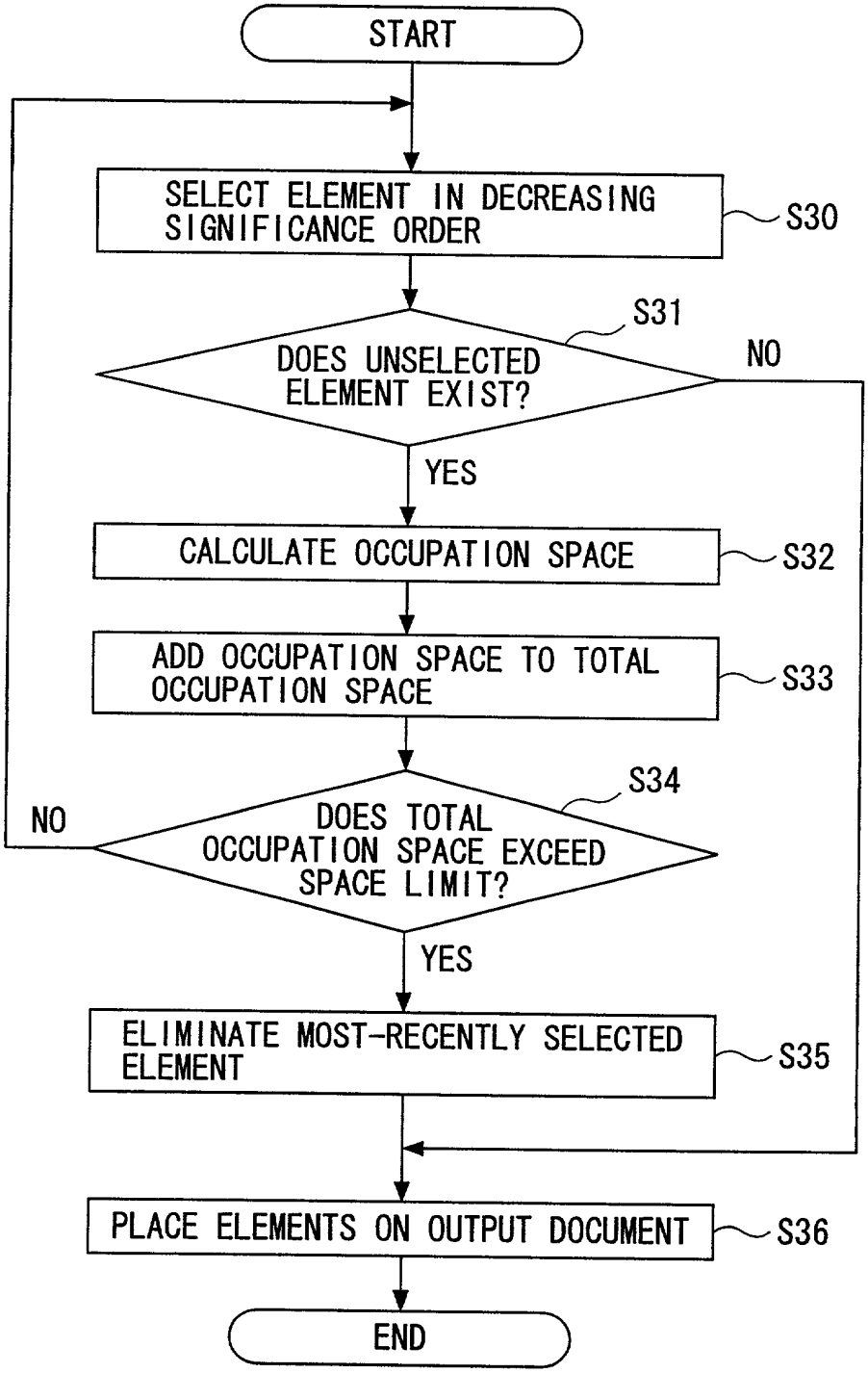

START
SELECT ELEMENT IN DECREASING SIGNIFICANCE ORDER
S30
S31
DOES UNSELECTED ELEMENT EXIST?
NO
YES
CALCULATE OCCUPATION SPACE
S32
ADD OCCUPATION SPACE TO TOTAL OCCUPATION SPACE
S33
S34
NO
DOES TOTAL OCCUPATION SPACE EXCEED SPACE LIMIT?
YES
ELIMINATE MOST-RECENTLY SELECTED ELEMENT
S35
PLACE ELEMENTS ON OUTPUT DOCUMENT
S36
END

FIG.12

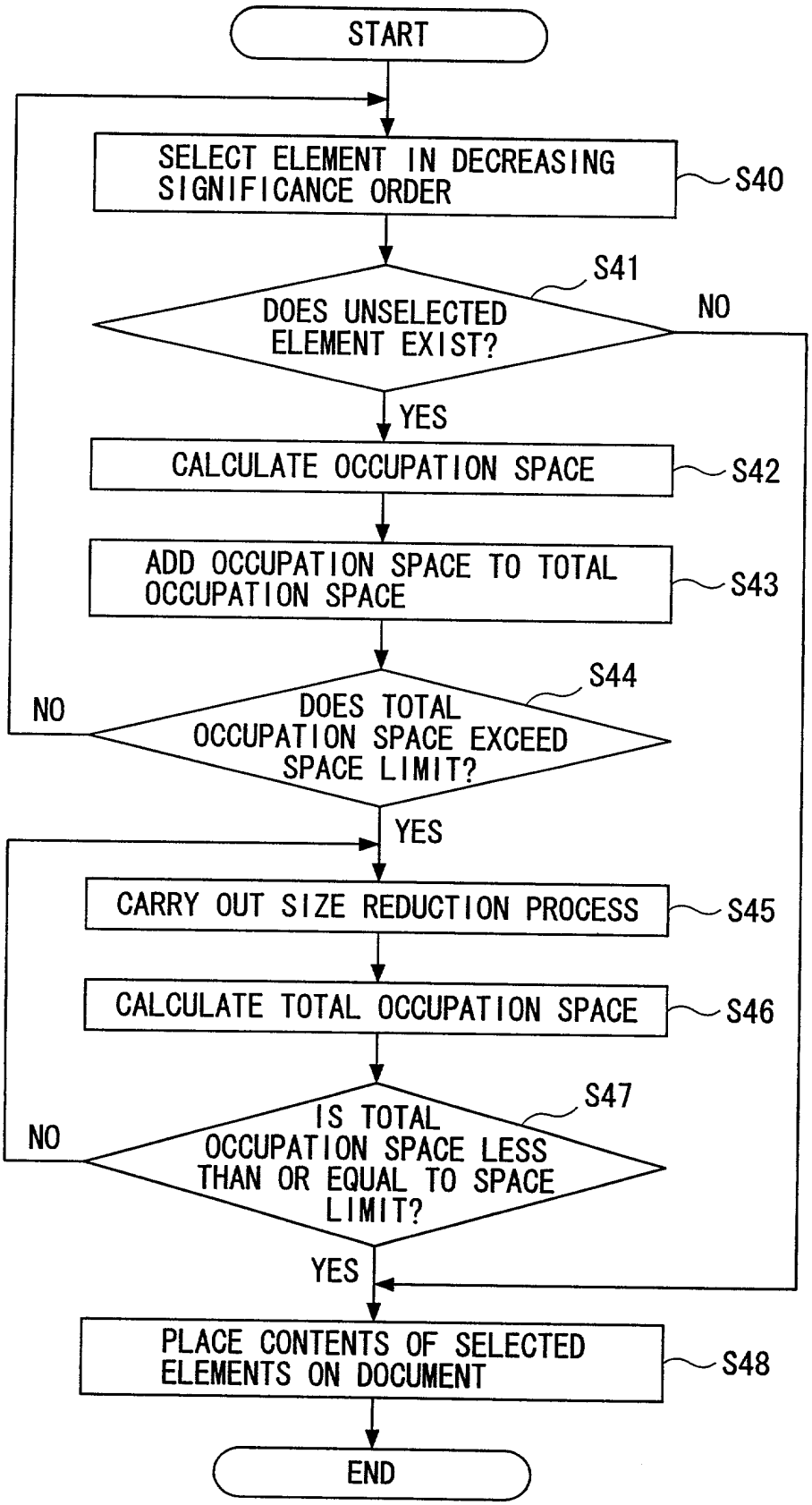

START
SELECT ELEMENT IN DECREASING SIGNIFICANCE ORDER
S40
DOES UNSELECTED ELEMENT EXIST?
S41
NO
YES
CALCULATE OCCUPATION SPACE
S42
ADD OCCUPATION SPACE TO TOTAL OCCUPATION SPACE
S43
DOES TOTAL OCCUPATION SPACE EXCEED SPACE LIMIT?
S44
NO
YES
CARRY OUT SIZE REDUCTION PROCESS
S45
CALCULATE TOTAL OCCUPATION SPACE
S46
IS TOTAL OCCUPATION SPACE LESS THAN OR EQUAL TO SPACE LIMIT?
S47
NO
YES
PLACE CONTENTS OF SELECTED ELEMENTS ON DOCUMENT
S48
END

FIG.13

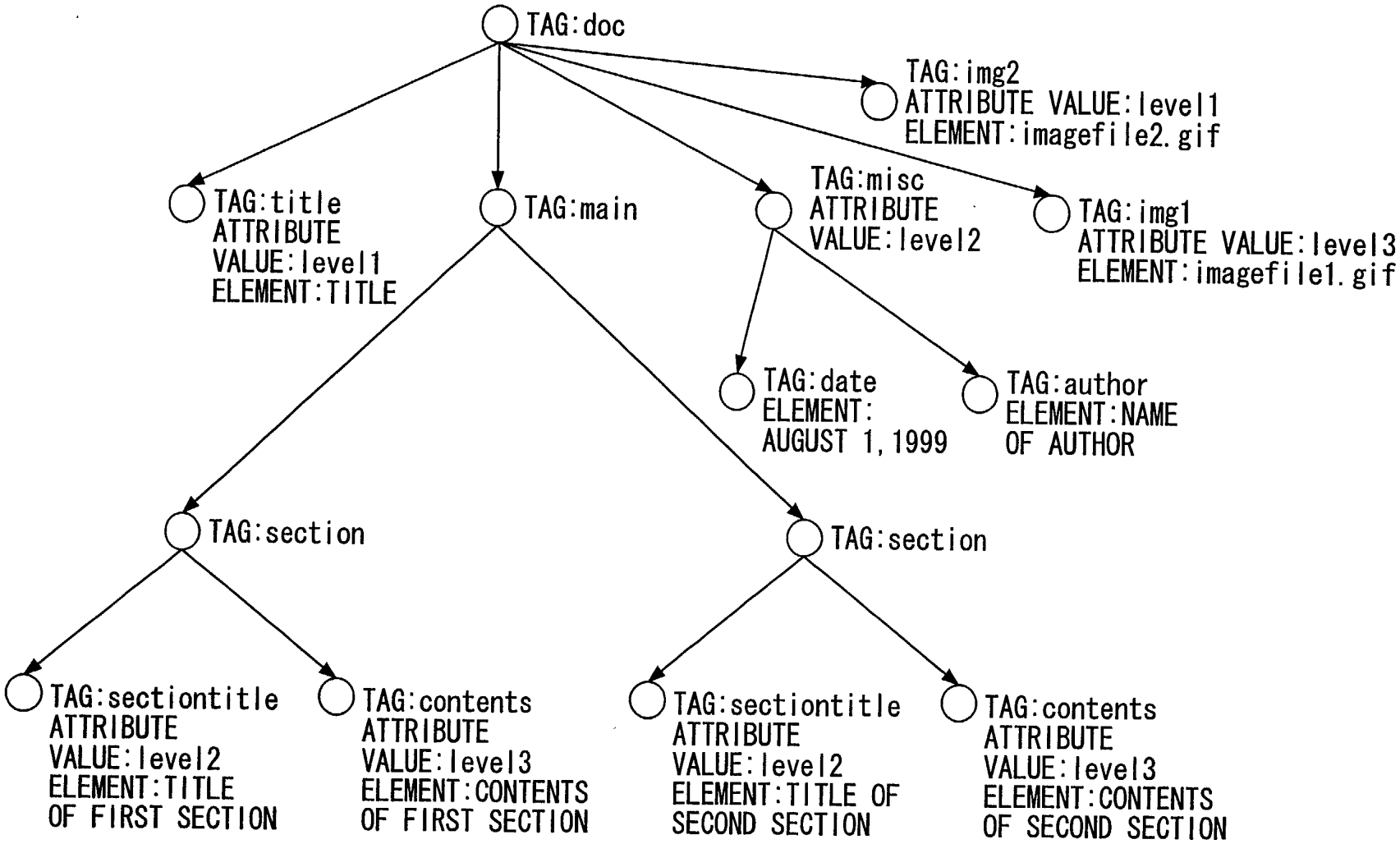

TAG:doc
TAG:img2
ATTRIBUTE VALUE:level1
ELEMENT:imagefile2.gif
TAG:title
ATTRIBUTE
VALUE:level1
ELEMENT:TITLE
TAG:main
TAG:misc
ATTRIBUTE
VALUE:level2
TAG:img1
ATTRIBUTE VALUE:level3
ELEMENT:imagefile1.gif
TAG:date
ELEMENT:
AUGUST 1, 1999
TAG:author
ELEMENT:NAME
OF AUTHOR
TAG:section
TAG:section
TAG:sectiontitle
ATTRIBUTE
VALUE:level2
ELEMENT:TITLE
OF FIRST SECTION
TAG:contents
ATTRIBUTE
VALUE:level3
ELEMENT:CONTENTS
OF FIRST SECTION
TAG:sectiontitle
ATTRIBUTE
VALUE:level2
ELEMENT:TITLE OF
SECOND SECTION
TAG:contents
ATTRIBUTE
VALUE:level3
ELEMENT:CONTENTS
OF SECOND SECTION

FIG.14

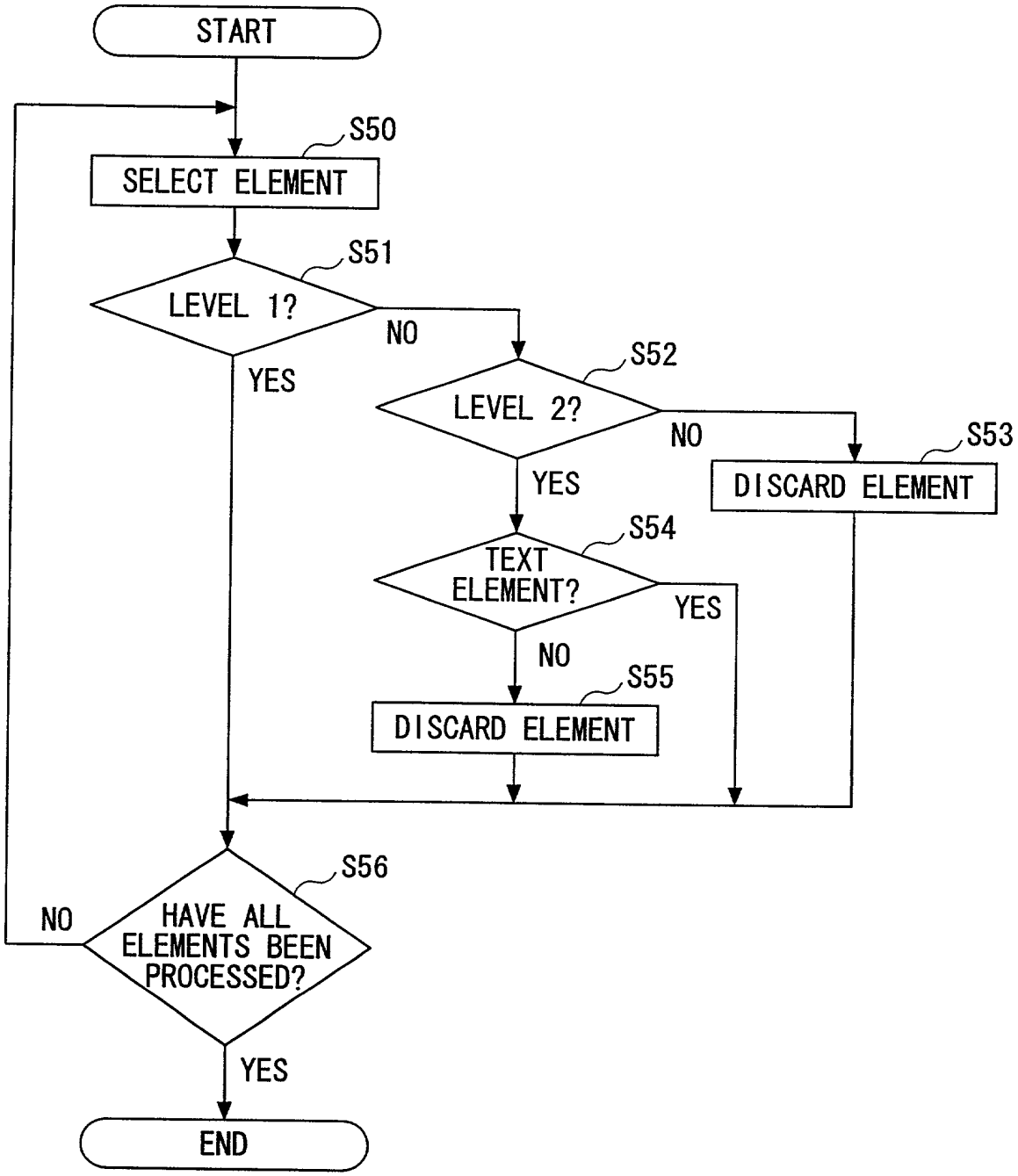

START
S50
SELECT ELEMENT
S51
LEVEL 1?
NO
YES
S52
LEVEL 2?
NO
YES
S53
DISCARD ELEMENT
S54
TEXT ELEMENT?
YES
NO
S55
DISCARD ELEMENT
S56
HAVE ALL ELEMENTS BEEN PROCESSED?
NO
YES
END

FIG.15

TITLE

TITLE OF FIRST SECTION

TITLE OF SECOND SECTION

AUGUST 1, 1999

NAME OF AUTHOR

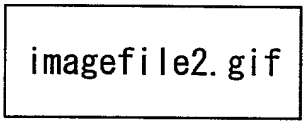


FIG.16

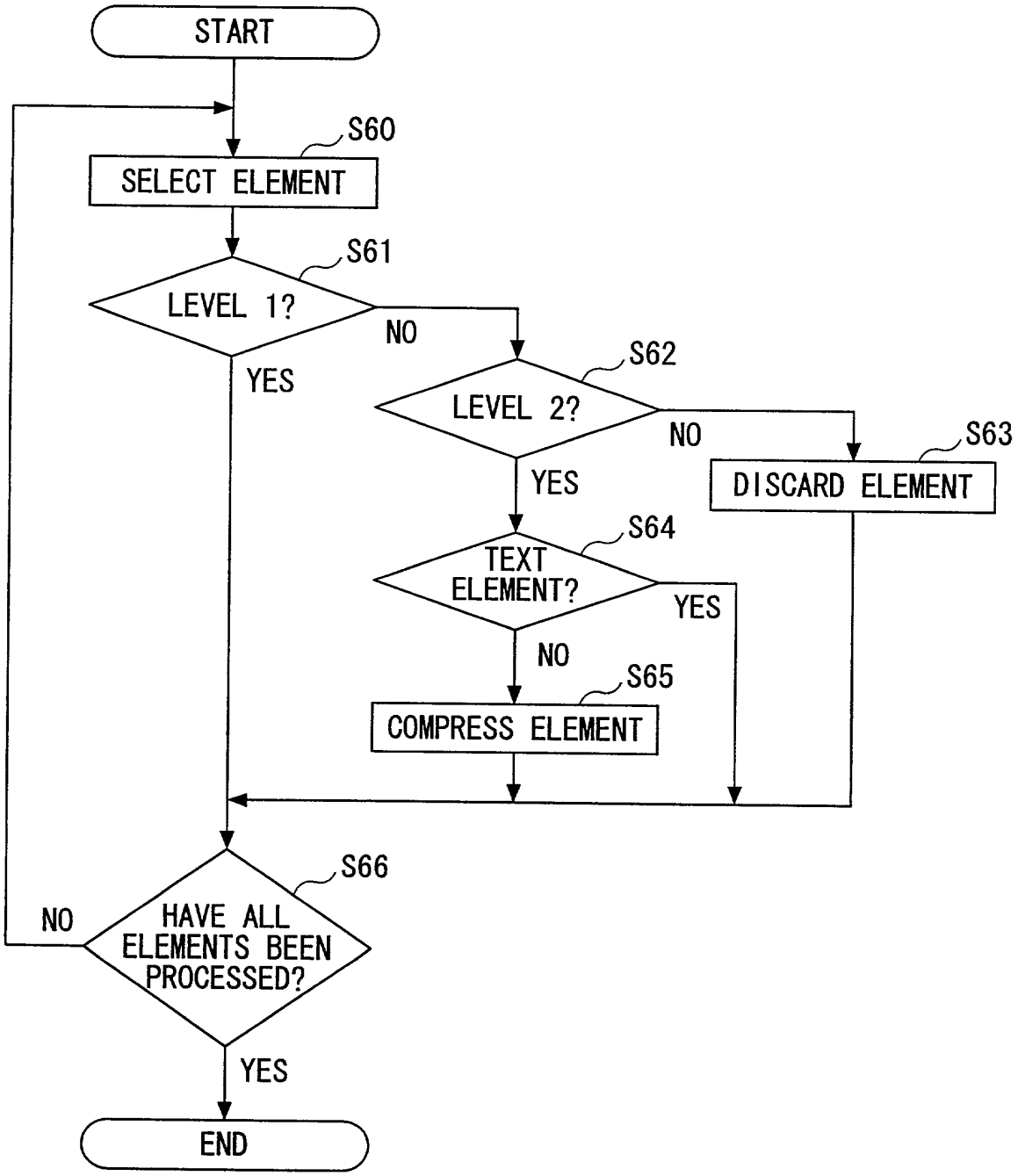

START
S60
SELECT ELEMENT
S61
LEVEL 1?
NO
YES
S62
LEVEL 2?
NO
YES
S63
DISCARD ELEMENT
S64
TEXT ELEMENT?
YES
NO
S65
COMPRESS ELEMENT
S66
HAVE ALL ELEMENTS BEEN PROCESSED?
NO
YES
END

FIG.17

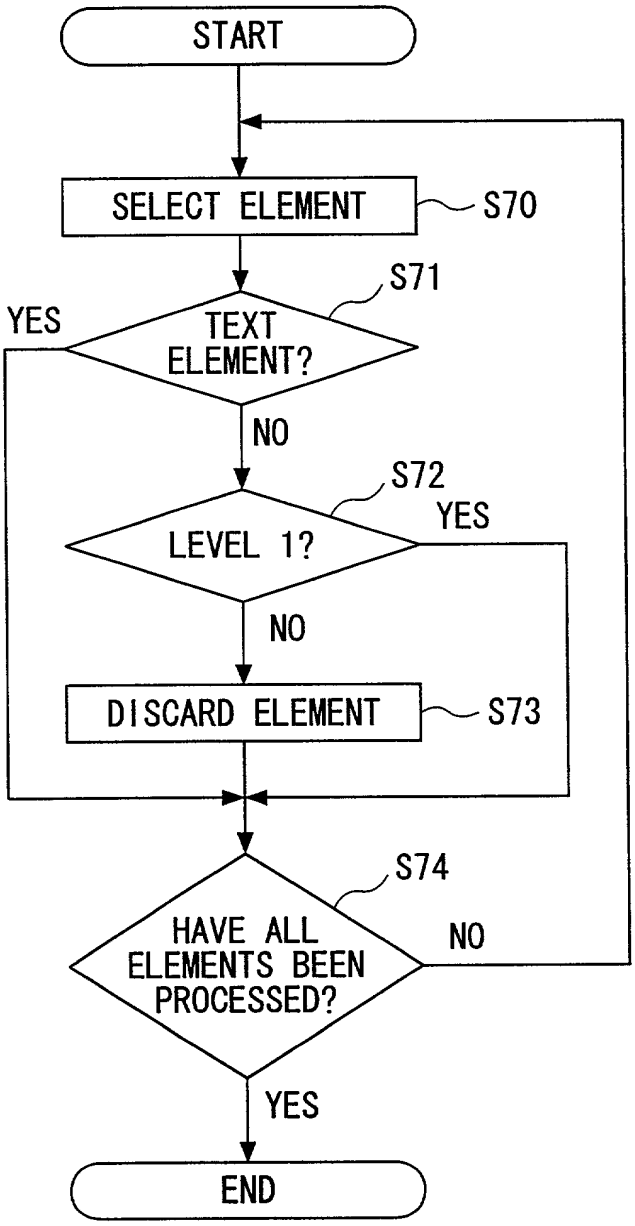

START
SELECT ELEMENT
S70
S71
TEXT ELEMENT?
YES
NO
S72
LEVEL 1?
YES
NO
DISCARD ELEMENT
S73
S74
HAVE ALL ELEMENTS BEEN PROCESSED?
NO
YES
END

FIG.18

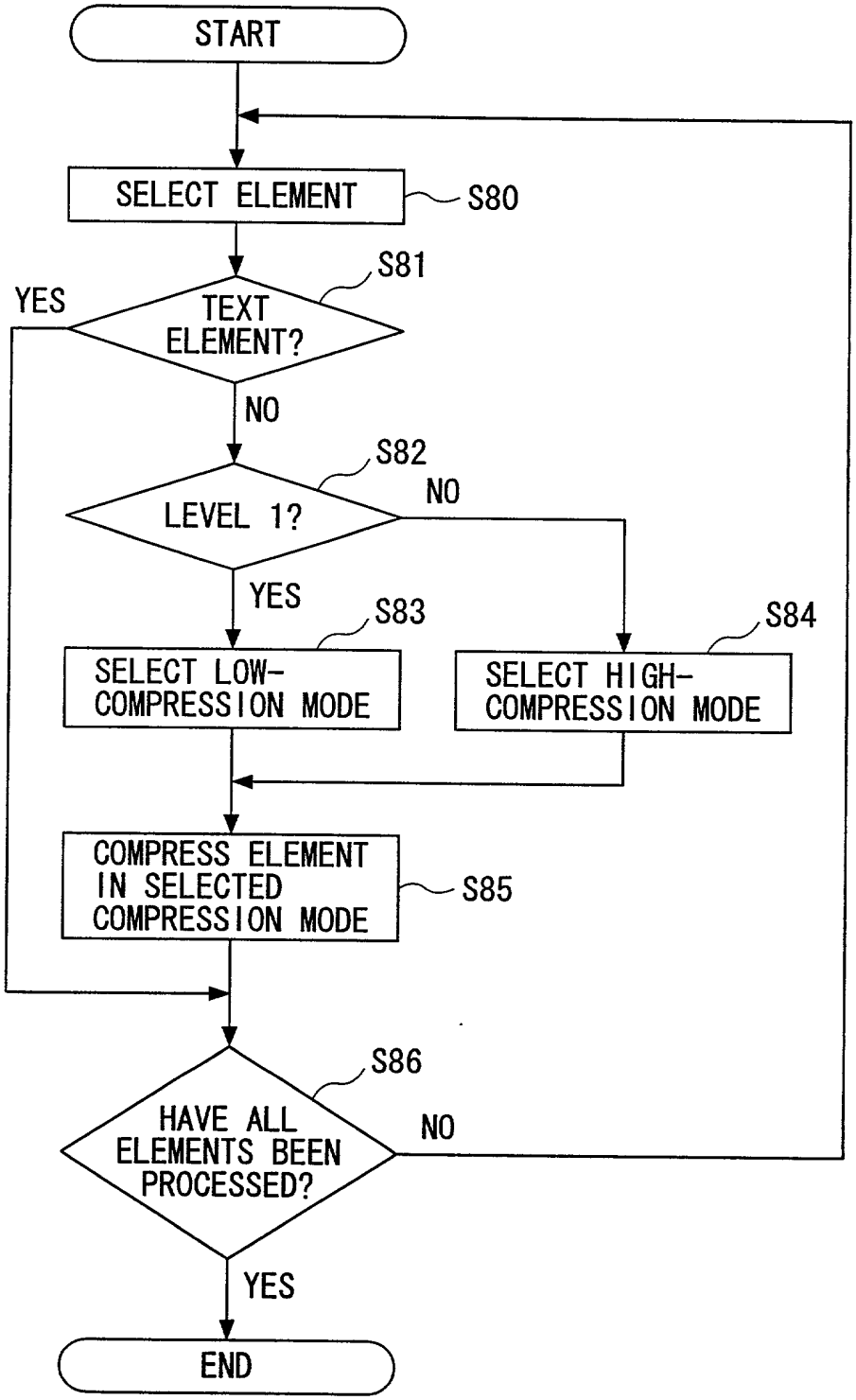
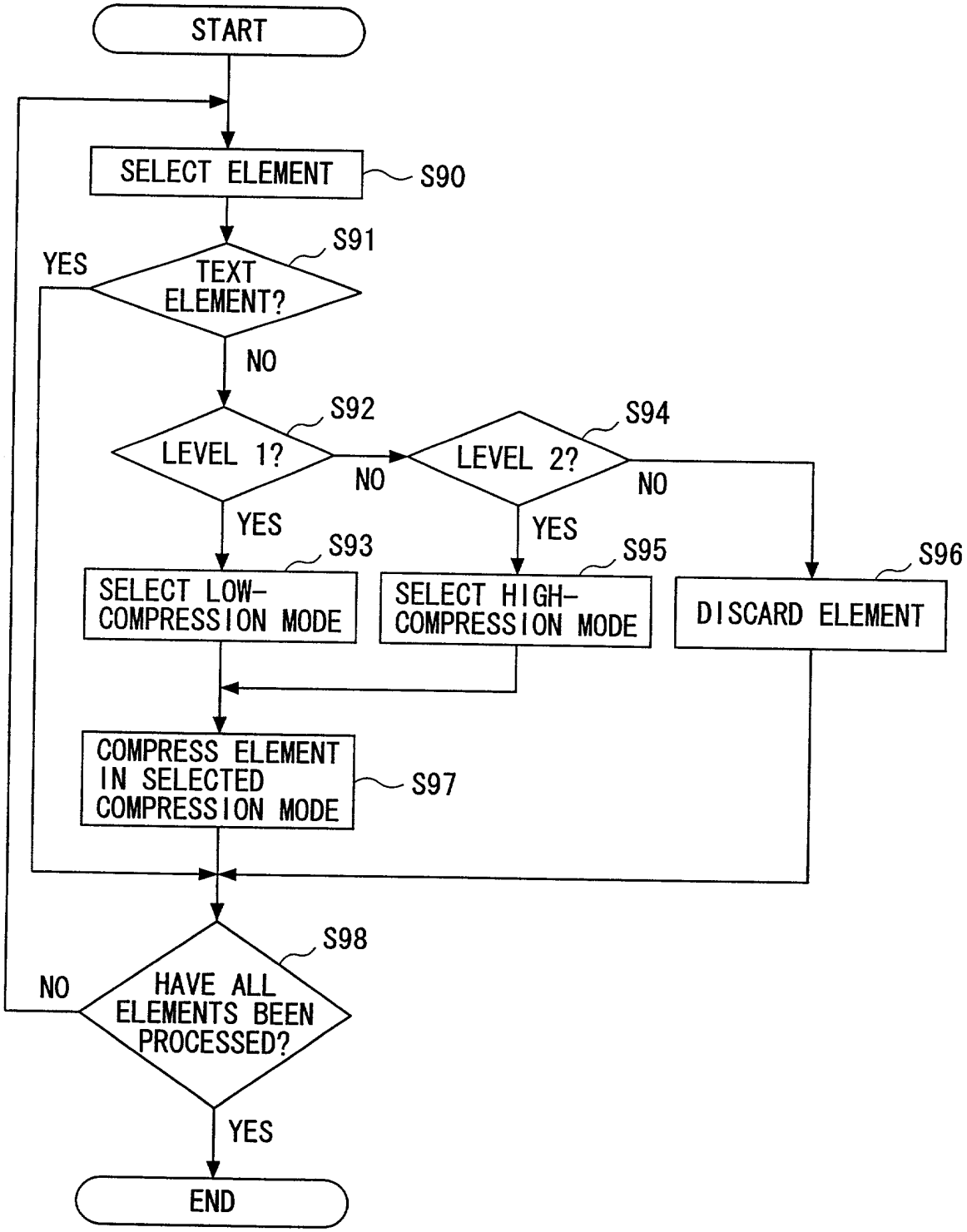

START
SELECT ELEMENT
S80
S81
TEXT ELEMENT?
YES
NO
S82
LEVEL 1?
NO
YES
S83
SELECT LOW-COMPRESSION MODE
S84
SELECT HIGH-COMPRESSION MODE
COMPRESS ELEMENT IN SELECTED COMPRESSION MODE
S85
S86
HAVE ALL ELEMENTS BEEN PROCESSED?
NO
YES
END

FIG.19


START
SELECT ELEMENT
S90
S91
TEXT ELEMENT?
YES
NO
S92
LEVEL 1?
NO
S94
LEVEL 2?
NO
YES
YES
S93
SELECT LOW-COMPRESSION MODE
S95
SELECT HIGH-COMPRESSION MODE
S96
DISCARD ELEMENT
COMPRESS ELEMENT IN SELECTED COMPRESSION MODE
S97
S98
HAVE ALL ELEMENTS BEEN PROCESSED?
NO
YES
END